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BIRDS OF THE ACARY MOUNTAINS
SOUTHERN BRITISH GUIANA

EMMET R. BLAKE

FIELDIANA: ZOOLOGY

VOLUME 32, NUMBER 7

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MAP 1. Area covered by the report, with collecting localities of the expedition.

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EMMET R. BLAKE

Associate Curator, Division of Birds

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BIRDS OF THE ACARY MOUNTAINS

INTRODUCTION

This report is based on a collection of 500 specimens that I made for Chicago Natural History Museum during the latter half of 1938, while undertaking a zoological reconnaissance of the Acary¹ Mountains and adjacent lowlands of southern British Guiana. Four hundred eighty-seven additional bird skins and a considerable portion of the other collections unfortunately were destroyed when my boat was lost while descending King William Falls, a series of treacherous rapids in the Courantyne River some 300 miles from the coast.

All but six of the 156 forms listed are represented by specimens that were salvaged after the river accident. The remainder are birds of such distinction as to be safely included as sight records. Altogether there are fewer than one-third of the species that might be expected to occur in an area flanked by the Guiana midlands and by the Amazon basin. Nevertheless, even so limited a sampling as this affords a welcome opportunity to investigate the faunal affinities of a biologically unexplored region about which naturalists have long speculated.

The expedition, known as the Sewell Avery British Guiana Expedition in honor of its sponsor, a Trustee of the Museum, was planned to take advantage of unique opportunities that existed briefly in 1938. A survey of the British Guiana-Brazil boundary had just been completed, with the result that a previously unexplored area became, for a period of months, relatively accessible. Experienced river men, surplus supplies and various facilities were made available to me by the Boundary Commission before it disbanded. The Museum is therefore deeply indebted to Mr. Avery, without whose timely generosity the expedition could not have been undertaken.

PHYSICAL CHARACTERISTICS OF THE ACARY MOUNTAINS

The Acary Mountains form a distinct but rather unimposing sierra extending entirely across the southernmost portion of British

¹ Sometimes spelled Acarai, Akarai, Acarahy or Arary.

Guiana. Located approximately midway between the Amazon River and the Caribbean coast, they form a continuous watershed drained from the south by tributaries of the Rio Trombetas in Brazil, and from the north principally by the Courantyne and New Rivers, the latter an important tributary of the Courantyne. While this watershed was long accepted as the official British Guiana-Brazilian boundary, it was not until May, 1938, that the actual physical demarcation was completed by a joint survey commission after four years of labor.

These mountains, both geologically and topographically, are quite unlike the famed "Guiana Highlands" of southeastern Venezuela and adjacent parts of British Guiana, the avifauna of which has been ably documented in recent years by Chapman, Phelps, Gilliard and others. Granite rather than sandstone is the dominant geological feature of the Acary range. Weathered plateaus and isolated tablelands are entirely lacking and there are no cliffs of importance. Outcroppings of matrix are both uncommon and of small extent, and nowhere in the area is there evidence of the formidable erosion that is so characteristic of the sandstone formations of southern Venezuela.

By contrast, the hard matrix of the Acary Mountains is generally covered with soil, although but thinly so on the summits and ridges. The crowns of individual mountains tend to be rounded, but from their sides radiate ridges that either drop away steeply to the adjacent lowlands or form saddlebacks with similar formations of other mountains. The ravines, sometimes decidedly precipitous at their points of origin, are generously strewn with boulders and support an abundance of the rank vegetation that flourishes in moist situations.

The complex of heavily forested mountains, subsidiary ridges and associated ravines conforms to no orderly pattern, although the narrow sierra of which they are a part extends approximately one hundred miles along a generally southwestern-northeastern axis. None of the mountains are higher than 4,000 feet and few exceed 3,200 feet. The average elevation of the entire Acary range is somewhat less than 2,000 feet above sea level, the highest portion being toward the western end. Low passes near the headwaters of the Essequibo and Courantyne Rivers reflect this topographical cline from west to east very well, their altitudes being 1,130 feet and 794 feet, respectively.

The flora of the highlands is virtually unknown. In all probability it will be found to differ little, if at all, from the essentially

Amazonian flora of the adjacent lowlands. The magnificent humid-tropical, climax forest that blankets the entire area becomes somewhat modified only on the upper slopes and summits of the higher mountains. There the ground-cover of herbs and shrubs usually is sparse, the trees generally smaller and the vegetation less diverse than in the lowlands. These conditions are local, however, and probably are due more to the dearth of moisture and of suitable soil than to any other factor. Although several birds characteristic of the Subtropical Zone elsewhere were collected on the higher mountains, I found no obvious botanical evidence of a true "cloud forest" in southern British Guiana.

FAUNAL AFFINITIES

As might be expected, the humid-tropical character of the mountain vegetation is abundantly reflected by the avifauna. All but 5 of the 125 species that were found above 1,500 feet altitude in the Acary Mountains are essentially lowland birds. Most are of widespread occurrence in all three of the Guianas and range southward to the north bank of the lower Amazon River. Many also occur south of the Amazon, or elsewhere in lowland areas not usually included in the Guianan sub-region, as the same or as closely related forms.

The following table is an analysis of the distribution of the 125 species recorded in the Acary Mountains at elevations exceeding 1,500 feet. The faunal relationships suggested therein probably approximate, at least in a general way, the pattern to be expected in a much more inclusive survey of the Acary avifauna.

	<i>Same Form</i>	<i>Different Form</i>	<i>Species Absent</i>
Throughout British Guiana.....	113 (90.5%)	5 (4%)	7 (5.6%)
Dutch Guiana.....	103 (82.4%)	1 (0.8%)	21 (16.8%)
French Guiana.....	111 (88.7%)	5 (4%)	9 (7.2%)
Brazil: North of lower Amazon...	102 (81.5%)	8 (6.4%)	15 (12%)
Brazil: South of lower Amazon...	40 (32%)	56 (44.8%)	29 (23.2%)
Mt. Roraima.....	44 (35.2%)	16 (12.8%)	65 (52%)
Mt. Auyan-tepui (above 5,000 ft.)	2 (1.6%)	123 (98.4%)	
Mt. Auyan-tepui (below 3,600 ft.) ..	63 (50.4%)	12 (9.6%)	50 (40%)
Duida region.....	56 (44.8%)	35 (28%)	34 (27.2%)
(Upper Orinoco River, Cassiquire Canal, upper Rio Negro)			
Middle and lower Orinoco River..	63 (50.4%)	22 (17.6%)	40 (32%)

It will at once be noted that the avifauna of the Guianas south to the north bank of the lower Amazon River is essentially homogeneous, the continuity of distribution within the area being, how-

ever, apparently considerably interrupted in Dutch Guiana. Actually, it is probable that no very extensive or abrupt discontinuity of avian distribution occurs anywhere in the forested portions of the Guianas, or in the lower Amazon basin north of that river, indications to the contrary being those that are inherent in any tropical area so little explored. In support of this observation it may be pointed out that eleven of the twenty-one species of this collection that are as yet unknown in Dutch Guiana occur more or less extensively in the lowlands of both British and French Guiana, and may be presumed to inhabit Dutch Guiana as well. Nine of the twenty-one species are also unreported in French Guiana while one, *Piculus chrysochloros capistratus*, is represented there by another race (*guianensis*) of doubtful distinction.

Such speciation as has taken place in the Guianas, and it is relatively minimal, appears to be associated with some of the larger rivers and, to a lesser extent, with the Acary Mountains. Even among the birds treated herein there are indications that the Essequibo, Courantyne and Maroni Rivers have inhibited the distribution of some birds more or less effectively. However, the interiors of both French and Dutch Guiana, and of British Guiana east of the Essequibo River, must be explored much more thoroughly before the principal areas of genetic isolation can be delineated with certainty.

Below are listed several birds of southern British Guiana that are replaced in French Guiana by another form. It is noteworthy that in only one instance (*Phaethornis ruber*) does the population in Dutch Guiana differ from that of British Guiana.

British Guiana

Phaethornis ruber episcopus
Topaza pella pella
Pteroglossus aracari roraimae
Piculus chrysochloros capistratus
Celeus elegans hellmayri
Thamnophilus murinus murinus
Tachyphonus cristatus intercedens

French Guiana

Phaethornis ruber ruber
Topaza pella smaragdula
Pteroglossus aracari atricollis
Piculus chrysochloros guianensis
Celeus elegans elegans
Thamnophilus murinus cayannensis
Tachyphonus cristatus cristatus

I remarked above that certain Guiana rivers probably surpass the Acary Mountains as implements of isolation. While it is evident that this range is neither sufficiently high nor so isolated from similar elevations as to have been of much importance as a factor of evolution, it nevertheless influences the local distribution of many birds very effectively. Obviously, species that are dependent upon a swampy or riverside habitat, to mention extreme examples, will not be

found in their absence. Unfortunately, the ecological requirements of all birds are not so clear-cut. Obscure factors or combinations thereof, often subtle or as yet unsuspected, probably influence the local distribution of tropical bird-life no less than do the obvious.

Many species that are conspicuously abundant in lowland forests both north and south of the Acary Mountains were not found beyond their foothills, a circumstance only partly explained by the limitations of collecting. Other equally common lowland birds ranged to the tops of the mountains, but were much less abundant above 1,500–1,800 feet altitude, where, presumably, critical ecological factors become operative. Random examples of this category are *Psophia c. crepitans*, *Momotus m. momota*, *Monasa atra*, *Xiphorhynchus p. pardalotus*, *Lipaugus cineraceus*, *Perissocephalus tricolor*, *Pipra e. erythrocephala* and *Cyanocorax cayanus*. On the other hand, a few characteristically lowland birds, as *Sarcorhamphus papa*, *Leucolepis a. arada*, *Smaragdolanus l. leucotis* and *Ostinops v. viridis*, were unaccountably most abundant at higher altitudes.

Only five essentially Subtropical birds were found in the Acary Mountains. The evident poverty of the Upper Zonal fauna in southern British Guiana is particularly striking when compared with that of Mounts Duida (52 species), Roraima (60 species) and Auyan-tepui (40 species), towering sandstone bastions of southern Venezuela, where far greater isolation obtains. Of interest, also, is the fact that two of the five Guiana species (*Aulacorhynchus derbianus* and *Terenura callinota*) are elsewhere restricted to the Subtropical Zone, while the other three (*Piculus rubiginosus*, *Xiphocolaptes promeropirhynchus* and *Oxyruncus cristatus*) sometimes also occur in the lowlands. It is significant that four of these essentially Upper Zonal representatives range eastward only as far as the Acary Mountains, and there most closely approach sea level. The fifth, *Oxyruncus cristatus*, is a disappearing relict species having a remarkably discontinuous range that extends from Costa Rica to Paraguay.

Clearly, the highlands of southern British Guiana (and presumably those to the eastward) have little evolutionary potential, although they now serve as a peripheral haven for an impoverished, and doubtless diminishing Subtropical fauna. Three of the five Upper Zonal birds are at present known only from the Acary Mountains, and are presumed to be endemic. Of these, *Aulacorhynchus derbianus osgoodi* and *Piculus rubiginosus nigriceps* are replaced in the "Guiana Highlands" (Mounts Roraima, Auyan-tepui and Duida)

by one or more closely related forms. *Terenura callinota guianensis*, the third endemic Acary bird, is the slightly modified representative of a distinctive Andean species hitherto unrecorded east of Colombia (Aguadita) and western Ecuador (Pallatanga and Nanegal). Both *Xiphocolaptes promeropirhynchus tenebrosus* and *Oxyruncus cristatus phelpsi* occur locally in the eastern portion of the "Guiana Highlands." The former is known both from the western slopes of Mount Chimantá-tepui (2,300 feet) and from Arabupú (4,000 feet), near Mount Roraima, while the latter is found at 3,600 feet altitude on Mount Auyan-tepui. In the case of *Oxyruncus* this is a most surprising distributional pattern in view of the fact that Roraima, an intermediate locality, supports an endemic representative.

From the foregoing it is seen that the impoverished Upper Zonal fauna of southern British Guiana stems principally from the sandstone regions of southern Venezuela, the highland fauna of which shows a decided affinity to that of the Andes. In accounting for the strong Andean element in the Duidan-Roraiman fauna, Chapman (1931, pp. 46-48) dismisses as most improbable the theory of a successful eastward emigration resulting from fortuitous flight. Since there is no evidence of recent geologic connection between the two mountain masses, he postulates that the representatives of Andean forms now comprising the Duida-Roraima faunal complex are the survivors of birds that formerly occupied the intervening country.

Such probably also is the case with the few Subtropical birds of southern British Guiana now isolated geographically and genetically from their nearest allies in the "Guiana Highlands." I can not so readily account for the presence in the Acary Mountains of at least two far-western species that are as yet unknown anywhere in the vast area between. One, *Terenura callinota*, has been mentioned. A second, *Contopus nigrescens*, reappears in southern British Guiana as the identical form (*canescens*) of northeastern Peru, although the two populations apparently are separated by almost 1,500 miles. Since *canescens* presumably is non-migratory, and decidedly rare wherever found, there is reason to believe that it will yet be discovered in the sandstone highlands of southern Venezuela.

ADDITIONS TO THE FAUNA OF BRITISH GUIANA

Seventeen birds collected in the Acary Mountains were previously unknown in British Guiana. Three of these (*Aulacorhynchus*

derbianus osgoodi, *Piculus rubiginosus nigriceps*, *Terenura callinota guianensis*) have been described elsewhere as new while the others represent greater or lesser extensions of range.

Trogon collaris collaris
Aulacorhynchus derbianus osgoodi
Piculus rubiginosus nigriceps
Xiphocolaptes promeropirhynchus
tenebrosus
Synallaxis rutilans dissors
Pitydora ruficaudatus ruficaudatus
Herpsilochmus stictocephalus
Terenura callinota guianensis

Pipra serena serena
Contopus nigrescens canescens
Oxyruncus cristatus phelpsi
Turdus albicollis poiteaui
Coereba flaveola minima
Parula pitiayumi elegans
Tangara chilensis paradisea
Hemithraupis guira nigrigula
Hemithraupis flavicollis flavicollis

COLLECTING STATIONS

The map (frontispiece) indicates the route followed to the Acary Mountains and the approximate position of each collecting station. Several of the latter were occupied very briefly and most appear on no other published map. It will be noted that all of the collecting stations, with the single exception of my camp at King Frederick William IV Falls, are in British Guiana. Extensive collections were made only in the Acary Mountains, principally in the vicinity of Boundary Camp (1,800 feet altitude), where more than 600 birds were taken. All of the stations are listed below with dates of occupancy as represented by specimens still extant.

King Frederick William IV Falls (August 16-20)
 Ashiru Falls (October 27)
 Oronoque Base Camp (August 27; October 26)
 Calf Bird Camp (August 30)
 Pairima Camp (August 31-September 1)
 Haimara Camp (October 24)
 Phantom Falls (October 22-23)
 New River Depot (September 3)
 Middle Base Camp (September 4-14; October 21)
 Navigation Head (October 20-21)
 Boundary Camp (September 20-October 15)

I am indebted to Dr. Herbert Friedmann, Mr. Rodolphe Meyer de Schauensee, Mr. W. E. Clyde Todd and Mr. John T. Zimmer for the loan of many specimens in their charge. To Mr. Philip S. Peberdy, formerly Curator of the Natural History and Economic Science Museums of British Guiana, I wish to express appreciation for numerous personal courtesies in Georgetown, and for unfailing co-operation in assisting with the organization of the expedition before its departure from the coast. Much credit for the success of the enterprise is also due Mr. Richard Baldwin of Georgetown,

my assistant and previously a member of the Boundary Survey Commission, whose knowledge of the rivers, efficiency and personal courage saved the expedition from disaster on many occasions. Finally, I am especially grateful to Abibul Rasool of Buxton Village, British Guiana, expedition taxidermist, whose presence of mind at the time of the boat accident was instrumental in saving hundreds of specimens that otherwise would have been lost.

SYSTEMATIC LIST

TINAMIDAE

***Tinamus major major* Gmelin**

Tetrao major Gmelin, 1789, Syst. Nat., 1, (2), p. 767—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 10.

This notoriously variable form often has characters that approximate, or show a tendency toward, those of *zuliensis* or *serratus*. The Itabu Creek specimen is a case in point, being decidedly olivaceous above and heavily barred as in *zuliensis*, while the forehead differs from that of typical *major* in being concolorous with the crown. The sides of its head are dull rufous and seem to tend toward *serratus*.

***Crypturellus cinereus cinereus* Gmelin**

Tetrao cinereus Gmelin, 1789, Syst. Nat., 1, (2), p. 768—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 10.

As shown by Hellmayr and Conover (1942, pp. 30–31, footnote), the reddish brown bird previously known as *macconnelli* is, in fact, merely a color phase of *cinereus*. The latter designation usually has been reserved for birds of distinctly sooty appearance, but Chubb (1916, pp. 8, 9) reversed this concept, although clearly in contradiction of Buffon's original description. In any case, it is now known that both color phases and all manner of intermediate plumages are of fortuitous occurrence, although their relative abundance may vary locally. The sooty phase appears to predominate in British Guiana and the Itabu Creek specimen is of that plumage.

***Crypturellus variegatus variegatus* Gmelin**

Tetrao variegatus Gmelin, 1789, Syst. Nat., 1, (2), p. 768—Cayenne.

Acary Mountains: Boundary Camp; 5 females, September 20–October 14.

Itabu Creek: Middle Base Camp; 3 females, September 8–12.

Three specimens collected October 1–3 are in subadult plumage characterized by white spotting of the breast and absence of bars on the dorsal parts, flanks and thighs.

Crypturellus v. variegatus ranges throughout the forested areas of British Guiana and certainly is the most abundant tinamou in the Colony. It was common at all elevations in the Acary Mountains, but was most often found in fairly dry areas having little ground cover.

ARDEIDAE

Ardea cocoi Linnaeus

Ardea cocoi Linnaeus, 1766, Syst. Nat., ed. 12, p. 237—Cayenne.

New River: Pairima Camp; 1 female, August 31.

This magnificent heron occurs locally throughout the country. It is less numerous on the rivers of the coastal plain than in the interior, where we saw individuals almost daily while voyaging on the upper Courantyne and New Rivers. Cocoi herons are solitary in habit; in fact, I have never seen more than two birds together even directly after the breeding season. They were not found on Itabu Creek, a very constricted waterway, although fairly common on the near-by New River.

Tigrisoma lineatum lineatum Boddaert

Ardea lineata Boddaert, 1783, Tabl. Pl. Enl., p. 52—Cayenne.

New River: New River Depot; 1 male, September 3.

Tiger bitterns inhabit the riversides of the interior in considerable abundance but they frequent dense jungle growth and are not easily found. Unlike other large herons, this species is very furtive and never willingly takes flight over wide expanses of water. When suddenly disturbed it often seeks concealment by "freezing" in position, without, however, elevating the bill as with the American bittern (*Botaurus*).

ANATIDAE

Cairina moschata Linnaeus

Anas moschata Linnaeus, 1758, Syst. Nat., ed. 10, p. 124—Brazil.

Itabu Creek: Middle Base Camp; 1 male, October 21.

Phantom Falls; 1 male, October 22.

These specimens were collected from small flocks, probably family groups, of four and five birds respectively that were flushed from beneath overhanging waterside vegetation. The presence of this large duck on so small a forest stream is unusual, although muscovies are locally abundant on the larger rivers elsewhere in British Guiana.

CATHARTIDAE

Sarcorhamphus papa Linnaeus

Vultur papa Linnaeus, 1758, Syst. Nat., ed. 10, p. 86—Surinam.

Acary Mountains: Boundary Camp; 2 males, September 25 (lost in river accident).

This species is the dominant vulture in forest areas of extreme southern British Guiana. It was seen frequently as we ascended the Courantyne and New Rivers, and small flocks were attracted to each collecting site that was occupied several days or longer. The king vulture was especially numerous in the Acary Mountains, where it seems to replace all other members of the family. A refuse pile established in a densely forested ravine near Boundary Camp was, within twenty-four hours, constantly attended by a dozen or more of these birds.

The peculiar relationship between this and other American vultures was often demonstrated at a refuse heap established near the camp at King Frederick William IV Falls. In this area, some distance from the mountains, turkey vultures far outnumbered *Sarcorhamphus*. Nevertheless, the arrival of a single king vulture invariably caused the immediate dispersal of an entire flock of *Cathartes*. No direct conflict was ever observed, but it was evident that a strong hierarchy of domination exists.

Cathartes aura ruficollis Spix

Cathartes ruficollis Spix, 1824, Av. Spec. Nov. Bras., 1, p. 2—interior of Bahía and Piahy, Brazil.

No turkey vultures were collected, but individuals were seen in flight almost daily on the upper Courantyne and New Rivers. Unlike *Coragyps atratus*, this vulture is generally distributed in forest areas of the interior. Small flocks quickly assembled about each of the river collecting camps, although none were found in the Itabu Creek drainage or Acary Mountains, where king vultures occurred in greatest abundance.

ACCIPITRIDAE

Harpagus bidentatus bidentatus Latham

Falco bidentatus Latham, 1790, Ind. Orn., 1, p. 38—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 13.

***Accipiter bicolor bicolor* Vieillot**

Sparrius bicolor Vieillot, 1817, *Nouv. Dict. Hist. Nat.*, nouv. éd., 10, p. 325—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 8.

Acary Mountains: Boundary Camp; 2 females, October 1, 4.

***Leucopternis albicollis albicollis* Latham**

Falco albicollis Latham, 1790, *Ind. Orn.*, 1, p. 36—Cayenne.

Courantyne River: King Frederick William IV Falls; 1 female, August 20.

Acary Mountains: Boundary Camp; 1 male, September 27.

***Urubitinga urubitinga urubitinga* Gmelin**

Falco Urubitinga Gmelin, 1788, *Syst. Nat.*, 1, pt. 1, p. 265—Brazil.

Itabu Creek: Middle Base Camp; 1 male, September 9.

***Harpia harpyja* Linnaeus**

Vultur harpyja Linnaeus, 1758, *Syst. Nat.*, ed. 10, p. 86—Mexico.

Itabu Creek: Middle Base Camp; 1 male, October 21.

Acary Mountains: Boundary Camp; 1 female, October.

Both birds were shot by native hunters who remarked that in neither instance did they have difficulty in approaching within shot-gun range. The specimen from Boundary Camp first attracted attention by its call, which was said to resemble that of a cock-of-the-rock. The second bird was shot from the top of a very tall tree commanding a broad sweep of Itabu Creek. Its stomach contained the partially digested hind foot of a kinkajou (*Potos flavus*). Both skins were destroyed in the river accident.

Harpy eagles occur throughout the forested areas of British Guiana but never in abundance. Although well known to the natives, I saw no living examples during the course of eight months of travel in the interior.

FALCONIDAE***Micrastur mirandollei* Schlegel**

Astur mirandollei Schlegel, 1862, *Mus. Pays-Bas*, 2, Astures, p. 27—Surinam.

Itabu Creek: Middle Base Camp; 1 male, September 12.

Micrastur ruficollis gilvicollis Vieillot

Sparvius gilvicollis Vieillot, 1817, *Nouv. Dict. Hist. Nat., nouv. éd.*, 10, p. 323—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 5.

Daptrius americanus americanus Boddaert

Falco americanus Boddaert, 1783, *Tabl. Pl. Enl.*, p. 25—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, September 9.

Acary Mountains: Boundary Camp; 1 female, September 30.

This caracara is gregarious and very noisy. Small flocks were seen daily along the entire course of the upper Courantyne and on New River, but much less commonly in the Itabu Creek area. They were most often found in the vicinity of rapids.

CRACIDAE

Ortalis motmot motmot Linnaeus

Phasianus motmot Linnaeus, 1766, *Syst. Nat.*, ed. 12, p. 271—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 8.

Colonies of chachalacas were found at intervals all along the Courantyne and New Rivers, and on the lower portions of Itabu Creek. These arboreal birds habitually inhabit dense vegetation of moderate size that flourishes locally in marshy areas throughout the country. They probably seldom come to earth, and only occasionally ascend above twenty-five feet, the latter when disturbed or while acting as look-outs. The birds are relatively quiet during the autumn and winter months and I never heard the distinctive and far-reaching morning and evening call that is so characteristic of breeding chachalacas in spring.

Pipile cumanensis cumanensis Jacquin

Crax (cumanensis) Jacquin, 1784, *Beytr. Gesch. Vögel*, p. 25, pl. 10—Orinoco River region near Cumaná, Venezuela.

New River: Pairima Camp; 1 female, September 1.

Several skins collected at Boundary Camp were lost in the river accident. White-headed guans were abundant both in the Acary Mountains and in the adjacent lowland forests. Flocks numbering more than a dozen individuals were flushed on several occasions.

PHASIANIDAE

Odontophorus gujanensis gujanensis Gmelin

Tetrao gujanensis Gmelin, 1789, Syst. Nat., 1, (2), p. 769—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, September 8.

My assistant, Richard Baldwin, saw a specimen running through the forest near Navigation Head, Itabu Creek, and several minutes later shot a fox (*Cerdocyon thous*) that appeared to be following its trail.

PSOPHIIDAE

Psophia crepitans crepitans Linnaeus

Psophia crepitans Linnaeus, 1758, Syst. Nat., ed. 10, p. 154—French Guiana.

Large flocks of trumpeters were encountered at intervals throughout the trip but they were much less common above 1,500 feet in the Acary Mountains than in lowland forests to the northward. The curiosity exhibited by this species approaches stupidity and it is not unusual to take several birds from a single flock. All of the specimens collected were lost in the river accident.

HELIORNITHIDAE

Heliornis fulica Boddaert

Colymbus fulica Boddaert, 1783, Tabl. Pl. Enl., p. 54—Cayenne.

New River: New River Depot; 1 male, September 3.

EURYPYGIDAE

Eurypyga helias helias Pallas

Ardea Helias Pallas, 1781, Neue Nord. Beytr., 2, p. 48, pl. 3—Brazil.

We occasionally saw sun-bitterns along the shores of the Courantyne and New Rivers but no specimens were collected.

COLUMBIDAE

Columba plumbea wallacei Chubb

Columba plumbea wallacei Chubb, 1917, Bull. Brit. Orn. Cl., 38, p. 32—Rio Capim, Pará, Brazil.

Itabu Creek: Middle Base Camp; 1 male, September 6.

Acary Mountains: Boundary Camp; 1 female, 1 male, September 24, October 15.

Leptotila rufaxilla rufaxilla Richard and Bernard

Columba (rufaxilla) Richard and Bernard, 1792, Act. Soc. d'Hist. Nat. Paris, 1, (1), p. 118—Cayenne.

Itabu Creek: Middle Base Camp; 4 males, 3 females, September 6–14.

Acary Mountains: Boundary Camp; 5 males, September 21–October 13.

Gray-fronted doves are common throughout the forested areas of British Guiana, but they are most abundant in the interior, where they far outnumber any other member of the family.

Oreopeleia montana montana Linnaeus

Columba montana Linnaeus, 1758, Syst. Nat., ed. 10, p. 163—Jamaica.

Itabu Creek: Middle Base Camp; 1 female, September 12.

This dove occupies the same habitat as the preceding, but it is largely terrestrial, and much more furtive in its habits. I am inclined to believe that it is far more abundant than has been supposed. Individuals were often flushed from the ground on the heavily wooded slopes of the Acary Mountains and I have found it to be generally distributed in the forested areas to the northward.

PSITTACIDAE

Pionopsitta caïca Latham

Psittacus Caïca Latham, 1790, Ind. Orn., 1, p. 128, No. 137—Cayenne.

Itabu Creek: Middle Base Camp; 3 males, September 13.

Two of these specimens are in subadult plumage, their heads being dull green shading to golden olive on the neck and forebreast, and only sparingly flecked with black. From adults they also differ in being less intensely colored throughout, and in having paler under parts and obscure nuchal collars.

Pionus fuscus P. L. S. Müller

Psittacus fuscus P. L. S. Müller, 1776, Natursyst., Suppl., p. 78—Cayenne.

Itabu Creek: Middle Base Camp; 2 males, September 13.

Acary Mountains: Boundary Camp; 1 female, October 7.

Deroptyus accipitrinus accipitrinus Linnaeus

Psittacus accipitrinus Linnaeus, 1758, Syst. Nat., ed. 10, p. 102—Cayenne.

Courantyne River: King Frederick William IV Falls; 2 males, August 18.

Itabu Creek: Middle Base Camp; 1 male, September 9.

CUCULIDAE

Piaya cayana cayana Linnaeus

Cuculus cayanus Linnaeus, 1766, Syst. Nat., ed. 12, p. 170—Cayenne.

Courantyne River: King Frederick William IV Falls; 1 male, August 19.

Itabu Creek: Middle Base Camp; 1 male, September 13.

Acary Mountains: Boundary Camp; 1 male, October 10.

Crotophaga major Gmelin

Crotophaga major Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 363—Cayenne.

This species evidently supplants *ani* on the Courantyne River above Wonotoba Falls. Although *major* is more partial to riverside vegetation than its smaller relative, it too is essentially a bird of forest-edge and clearing. The few individuals seen on the upper Courantyne and New Rivers were restricted to the small clearings made by the Boundary Survey Commission within three years of my visit. No specimens were collected, nor was the species found beyond New River Depot.

CAPRIMULGIDAE

Caprimulgus nigrescens nigrescens Cabanis

Caprimulgus nigrescens Cabanis, 1848, in Schomburgk, Reisen Brit. Guiana, 3, p. 710—Lower Essequibo River, British Guiana.

Acary Mountains: Boundary Camp; 1 male, October 7.

Itabu Creek: Navigation Head; 1 female, October 21.

New River: Haimara Camp; 1 female, October 24.

Courantyne River: King William Falls; 1 juvenile, November 8.

The flightless juvenile collected November 8 on the exposed rocks of an island near King William Falls was unattended by an adult when found.

Hydropsalis climacocerca schomburgki Sclater

Hydropsalis schomburgki "G. R. Gray" Sclater, 1866, Proc. Zool. Soc. London, 1866, p. 142—British Guiana.

New River: Haimara Camp; 1 male, 1 female, October 24.

Phantom Falls; 2 males, October 23.

The gonads of all New River specimens were undeveloped and the rectrices are badly abraded, whereas two males collected at Rockstone (lower Essequibo River) on March 9 and 18 were in breeding condition.

TROCHILIDAE

Therenetes leucurus leucurus Linnaeus

Trochilus leucurus Linnaeus, 1766, Syst. Nat., ed. 12, p. 190—Surinam.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 28, October 2.

Phaethornis superciliosus superciliosus Linnaeus

Trochilus superciliosus Linnaeus, 1766, Syst. Nat., ed. 12, p. 189—Cayenne.

Acary Mountains: Boundary Camp; 6 males, 1 female, 2?, September 22–October 14.

Five specimens of both sexes differ from other Guianan skins in having the anterior under parts dull white to pale dusky gray. I judge this to be an indication of immaturity, since two skins from the same locality agree in all respects with typical examples of *superciliosus*. A skin of this species in Chicago Museum collected at Serra do Lua, on the upper Rio Branco, is virtually identical with adult specimens from Rockstone, British Guiana, and there is little doubt that *saturator*, a weak race at best, will prove to be a synonym of the present form.

Phaethornis ruber episcopus Gould

Phaethornis episcopus Gould, 1857, Proc. Zool. Soc. London, pt. 25, 1857, p. 14—British Guiana.

Acary Mountains: Boundary Camp; 1 male, October 1.

Phaethornis r. episcopus is readily distinguished from *ruber* by its rich bronzy dorsal parts, broader pectoral band, and particularly by the deep bronze tone of its tail. Both birds have short rounded wings but, contrary to previous published accounts, the wings of *episcopus* average slightly larger than those of *ruber*.

Campylopterus largipennis largipennis Boddaert

Trochilus largipennis Boddaert, 1783, Tabl. Pl. Enl., p. 41—Cayenne.

Acary Mountains: Boundary Camp; 2 males, September 29, October 13.

Florisuga mellivora mellivora Linnaeus

Trochilus mellivorus Linnaeus, 1758, Syst. Nat., ed. 10, p. 121—Surinam.

Acary Mountains: Boundary Camp; 1 male, September 27.

This bird was in breeding condition, although collected in September.

Colibri delphinae Lesson

Ornismya Delphinae Lesson, 1839, Rev. Zool., p. 44—Santa Fé de Bogotá, Colombia.

Acary Mountains: Boundary Camp; 1 male, 1?, September 12, 14.

The unsexed skin, evidently in mature plumage, has a distinctly bronze throat that is quite unlike the golden iridescence of most violet-ears. Immature birds of the series at hand have the rectrices broadly tipped with dull cinnamon similar to the edgings of the dorsal feathers.

Thalurania furcata furcata Gmelin

Trochilus furcatus Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 486—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, 3?, September 20–October 10.

A female collected October 10 was in breeding condition, and several other specimens are in subadult plumage. As to the latter, a stage apparently rare in collections, one male has a coppery rump and an iridescent golden throat bounded posteriorly by a small patch of metallic green followed by a breast-band of violet-blue.

Topaza pella pella Linnaeus

Trochilus Pella Linnaeus, 1758, Syst. Nat., ed. 10, p. 119—Surinam.

New River: Phantom Falls; 1 female, October 23.

Haimara Camp; 1 female, October 24.

TROGONIDAE

Trogon melanurus melanurus Swainson

Trogon melanurus Swainson, 1837, Anim. Menag., 1838 (1837), p. 329—Demerara.

Itabu Creek: Middle Base Camp; 3 males, September 7–12.

Acary Mountains: Boundary Camp; 1 female, 1 male, October 3, 5.

Trogon strigilatus strigilatus Linnaeus

Trogon strigilatus Linnaeus, 1766, Syst. Nat., ed. 12, p. 167, No. 1—Cayenne.

Itabu Creek: Middle Base Camp; 2 males, September 9.

Acary Mountains: Boundary Camp; 1 male, October 11.

Trogon collaris collaris Vieillot

Trogon collaris Vieillot, 1817, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 320
—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 24–29.

Although Beebe (Beebe, Hartley and Howells, 1917, p. 130) lists *collaris* among the 351 species observed at Bartica, Chubb does not include the species in his *Birds of British Guiana* and previous records in both British and Dutch Guiana are specifically denied by Peters (1945, p. 155). The male listed above has the wing coverts more boldly barred with black than in Tobago specimens and the tail bars are somewhat finer, but for the present it seems best to allocate this bird to the nominate race.

Trogon rufus rufus Gmelin

Trogon rufus Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 404—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, 1 female, September 12, 13.

Acary Mountains: Boundary Camp; 3 males, 1 female, September 21–October 15.

These specimens are identical with birds from the coastal area. Two subadult males collected September 12 and 21 are in transition plumage and have a curious intermixture of adult characters. The tail, wings and ventral plumage of one specimen (September 12) are essentially like those of a female, but its crown, back and tail coverts are iridescent bronze-green as in adult males. The crown of the second bird is predominantly brown, although otherwise its plumage is that of an adult male.

Trogon violaceus violaceus Gmelin

Trogon violaceus Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 404—Surinam.

Acary Mountains: Boundary Camp; 1 male, October 10.

MOMOTIDAE

Momotus momota momota Linnaeus

Ramphastos momota Linnaeus, 1766, Syst. Nat., ed. 12, p. 152—Cayenne.

Itabu Creek: Middle Base Camp; 3 females, 1 male, September 6–12.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 29, October 15.

I found no motmots above 2,000 feet in the Acary Mountains but they occurred at lower elevations and were abundant in river forests to the northward. These solitary birds inhabit the deep forest and usually perch from six to fifteen feet above the ground, where they often remain motionless for long periods except for occasional twitching of the tail.

GALBULIDAE

Galbula albirostris albirostris Latham

Galbula albirostris Latham, 1790, Index Orn., 1, p. 245—Cayenne.

Acary Mountains: Boundary Camp; 2 males, 1 female, September 28–October 3.

Galbula dea dea Linnaeus

Alcedo Dea Linnaeus, 1758, Syst. Nat., ed. 10, p. 116—Surinam.

Acary Mountains: Boundary Camp; 3 males, September 27–October 5.

A specimen collected on October 5 is in adult plumage but has the abbreviated bill (33 mm.) and tail (85 mm.) of an immature bird.

Jacamerops aurea aurea P. L. S. Müller

Alcedo aurea P. L. S. Müller, 1776, Natursyst., Suppl., p. 94—Berbice, British Guiana.

Acary Mountains: Boundary Camp; 2 males, October 1, 15.

BUCCONIDAE

Notharcus macrorhynchos macrorhynchos Gmelin

Bucco macrorhynchos Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 406—Cayenne.

Acary Mountains: Boundary Camp; 1 male, October 8.

Bucco capensis Linnaeus

Bucco capensis Linnaeus, 1766, Syst. Nat., ed. 12, p. 168—Guiana.

Itabu Creek: Middle Base Camp; 1 female, September 11.

Malacoptila fusca fusca Gmelin

Bucco fusca Gmelin, 1788, Syst. Nat., 1, pt. 1, p. 408—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 29–October 3.

The only previous British Guiana record for this widespread puff-bird seems to be Bartica, on the lower Essequibo River.

Monasa atra Boddaert

Cuculus ater Boddaert, 1783, Tabl. Pl. Enl., p. 30—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, 2 females, September 6–8.

Navigation Head; 1 female, October 20.

Acary Mountains: Boundary Camp; 1 male, 2 females, October 10, 14.

This puff-bird is one of the most abundant non-colonial forest birds of the interior of British Guiana. It appears to be rare in the coastal area.

CAPITONIDAE

Capito niger niger P. L. S. Müller

Bucco niger P. L. S. Müller, 1776, Natursyst., Suppl., p. 89—Cayenne.

Acary Mountains: Boundary Camp; 2 males, 2 females, September 30–October 10.

RAMPHASTIDAE

Aulacorhynchus derbianus osgoodi Blake

Aulacorhynchus derbianus osgoodi Blake, 1941, Field Mus. Nat. Hist., Zool. Ser., 24, p. 228—Boundary Camp, head of Itabu Creek, Acary Mountains, British Guiana.

Acary Mountains: Boundary Camp; 1 male, 1 female, October 1, 7.

A strongly marked race characterized by the absence of chestnut tips on the rectrices and by the lack of a blue malar mark. As shown elsewhere (Blake, loc. cit.), *osgoodi* is nearest *whitelyanus* of the mountainous parts of western British Guiana and extreme eastern Venezuela. These races, while individually distinct, have in common with *duidae* several characters that differ in degree rather than in kind, a circumstance indicating a very close relationship

that is not fully shared by the Andean form, *derbianus*. It is especially noteworthy that the races of this species form, from west to east, a distinct cline involving both a reduction of size and a progressive modification of the basic color pattern. In *osgoodi*, the easternmost or peripheral form that alone inhabits the Tropical Zone, this trend reaches its zenith with the final elimination of certain color elements that are present in the subtropical races to the westward.

***Pteroglossus aracari roraimae* Brabourne and Chubb**

Pteroglossus roraimae Brabourne and Chubb, 1912, Ann. Mag. Nat. Hist., (8), 10, p. 261—British Guiana.

Courantyne River: King Frederick William IV Falls; 1 female, August 16.

Itabu Creek: Middle Base Camp; 1 male, September 11.

The Courantyne River specimen tends only slightly towards *atricollis* of French Guiana in the color of its breast but there is definite evidence of intermediacy in the single bird from Itabu Creek. A series collected in the Acary Mountains unfortunately was lost in the river accident. Nevertheless, from the material now available, it may be predicted that the birds of southern Dutch Guiana southward and westward to the Rio Trombetas will prove to be either typical of *atricollis*, or strongly influenced by it.

***Pteroglossus viridis viridis* Linnaeus**

Ramphastos viridis Linnaeus, 1766, Syst. Nat., ed. 12, p. 150—Cayenne.

Courantyne River: Oronoque Base Camp; 1 female, August 27.

***Selenidera culik* Wagler**

Pteroglossus Culik Wagler, 1877, Syst. Av., *Pteroglossus*, sp. 10—Cayenne.

Itabu Creek: Middle Base Camp; 3 males, 1 female, September 7-10.

Acary Mountains: Boundary Camp; 4 males, 5 females, September 21-October 13.

***Ramphastos vitellinus vitellinus* Lichtenstein**

Ramphastos vitellinus Lichtenstein, 1823, Verz. Doubl. Zool. Mus. Berlin, p. 7—Cayenne.

New River: Calf Bird Camp; 1 female, August 30.

Itabu Creek: Middle Base Camp; 3 males, September 6-11.

PICIDAE

Piculus rubiginosus nigriceps Blake

Piculus rubiginosus nigriceps Blake, 1941, Field Mus. Nat. Hist., Zool. Ser., 24, p. 230—Boundary Camp, head of Itabu Creek, Acary Mountains, British Guiana.

Acary Mountains: Boundary Camp; 3 males, 4 females, September 21–October 15.

This woodpecker differs from all other known races of *rubiginosus* in having the pileum blacker (less slaty-gray), the red of the nape reduced to an obscure, broken line in the male (lacking in the female) and the back and wing coverts clearer green, between Warbler Green and Pyrite Yellow of Ridgway. In size, pattern of throat and color of the under parts, *nigriceps* resembles *guianae*. However, an equally close relationship to the isolated subtropical form *viridissimus* of Mount Auyan-tepui, Venezuela, is indicated by its intensely green dorsal parts and reduced nuchal band. Although presently known only from the type locality, *nigriceps* probably occurs generally in the Acary Mountains and adjacent lowlands of both Brazil and British Guiana.

Piculus flavigula flavigula Boddaert

Picus flavigula Boddaert, 1783, Tabl. Pl. Enl., p. 49—Cayenne.

Acary Mountains: Boundary Camp; 2 females, September 26, 30.

Piculus chrysochloros capistratus Malherbe

Chloropicus capistratus Malherbe, 1862, Monog. Piciées, 2, p. 140, pl. 83—Rio Negro.

Acary Mountains: Boundary Camp; 1 female, October 3.

Previous British Guiana records are limited to the Rupununi River, approximately 150 miles northwest of the present locality. I have seen no examples of the French Guiana form *guianensis*, but Friedmann (1948, p. 440) has pointed out that the description of Todd's unique type practically fits the differences between two specimens of the present race collected at Cerro Yapacana, in the region of the upper Orinoco River.

Celeus elegans hellmayri Berlepsch

Celeus elegans hellmayri Berlepsch, 1908, Nov. Zool., 15, p. 272—Cumacusa, Mazaruni River, British Guiana.

Itabu Creek: Middle Base Camp; 1 female, September 9.

This specimen is neither typical of *hellmayri*, nor clearly referable to *approximans*, a very distinct form of which there is one record from Quonga, in southwestern British Guiana (Hargitt, 1890, p. 428). It differs from all other British Guiana skins examined in having the rump and flanks almost immaculate lemon yellow, its crown paler and less ochraceous buff, and the chestnut plumage darker and less bright than in typical *hellmayri*. From representative *approximans* it is readily distinguished by its larger size (wing 62 mm.), distinctly yellowish rump and flanks, and somewhat ochraceous crown. Although possibly an individual variant of *hellmayri*, the Itabu Creek specimen probably is representative of an intermediate population tending towards *approximans*, but nearer the former.

Celeus undatus undatus Linnaeus

Picus undatus Linnaeus, 1766, Syst. Nat., ed. 12, p. 175—Surinam.

Itabu Creek: Middle Base Camp; 1 female, September 12.

Acary Mountains: Boundary Camp; 1 female, September 30.

Celeus flavus flavus P. L. S. Müller

Picus flavus P. L. S. Müller, 1776, Natursyst., Suppl., p. 91—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, September 12.

Celeus torquatus torquatus Boddaert

Picus torquatus Boddaert, 1783, Tabl. Pl. Enl., p. 52—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, September 12.

Veniliornis cassini Malherbe

Mesopicus cassini Malherbe, 1862, Monog. Piciidées, 2, p. 55; 3, pl. 58, figs. 2-4—Cayenne.

Acary Mountains: Boundary Camp; 1 male, October 15.

Phloeoceastes rubricollis rubricollis Boddaert

Picus rubricollis Boddaert, 1783, Tabl. Pl. Enl., p. 37—Cayenne.

Courantyne River: King Frederick William IV Falls; 1 male, August 20.

Itabu Creek: Middle Base Camp; 1 female, September 5.

Acary Mountains: Boundary Camp; 1 male, October 3.

DENDROCOLAPTIDAE

Dendrocolaptes certhia certhia Boddaert

Picus certhia Boddaert, 1783, Tabl. Pl. Enl., p. 38—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 26.

The intensified coloration and rather sharply defined ventral bars of this specimen probably can be attributed to the action of river water in which it was submerged for several days. I can not so readily account for its markedly robust bill.

This specimen was in breeding condition, although collected in September.

Xiphocolaptes promeropirhynchus tenebrosus Zimmer and Phelps

Xiphocolaptes promeropirhynchus tenebrosus Zimmer and Phelps, 1948, Amer. Mus. Nov., No. 1373, p. 1—Mount Chimantá-tepui, Gran Sabana, Bolívar, Venezuela.

Acary Mountains: Boundary Camp; 1 female, September 26.

Comparison of this specimen some years ago with the various races of *promeropirhynchus* known at that time raised serious doubt as to its taxonomic status. Although most nearly like *orenocensis* in several important features, the straighter culmen, somewhat striped and more buffy throat, and particularly the much darker crown and mantle of the Acary bird immediately distinguished it from all available examples of its geographically distant relative. In examining this bird with Mr. Zimmer at the time, consideration both of its subadult plumage (in partial molt) and its history of having been submerged in the river accident led to our conclusion that it might well be a variant of *orenocensis* or an immature example thereof. The subsequent separation of *tenebrosus* on the basis of several specimens from southeastern Venezuela having identical characters has revealed our error.

This well-marked form appears to be the lowland representative of a species generally associated with the Subtropical or Temperate Zones. The present record extends its range approximately 300 miles from southeastern Venezuela, where the race was previously known only from the base of Mount Roraima (Arabupú) and from the western slope of Mount Chimantá-tepui at an altitude of 700 meters. By coincidence or otherwise, *tenebrosus* combines a geographical position and zonal affinity in relation to other members of *promeropirhynchus* similar to those of another Acary bird, *Aulaco-*

rhynchus derbianus osgoodi. Both are easternmost, lowland representatives of their respective species, which otherwise are confined entirely or very largely to the Subtropical Zone.

Too little is known of these birds and of the areas they occupy to warrant any judgment as to the implication of this parallel, but it is evident that the Acary Mountains influence the distribution of certain species limited elsewhere to higher altitudes.

Xiphorhynchus pardalotus pardalotus Vieillot

Dendrocopus pardalotus Vieillot, 1818, *Nouv. Dict. Hist. Nat., nouv. éd.*, 26, p. 117—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 29.

The nominate race differs from *caurensis* of southern Venezuela by its more olivaceous (less rufescent) upper parts and relatively prominent buffy streaks. The latter proves to be the more dependable character, since, in *pardalotus*, the dorsal streaks are always more distinctly edged with black than in *caurensis*, whereas the general tone of the plumage varies considerably in both forms, although certainly of diagnostic value in series.

Todd designated the range of *caurensis* as extending from the Caura River eastward only to the Guiana frontier. There is evidence, however, that it also ranges into western British Guiana, at least locally. A specimen in Chicago Museum taken on the Carimang River in northwestern British Guiana agrees in every respect with seven Venezuelan skins from the upper Caura, and it is evident that earlier locality records west of the Essequibo River require re-examination. Some degree of intergradation east of the Essequibo is suggested by the striking rufescence of a Rockstone skin that otherwise is similar to typical examples of *pardalotus* from the same locality.

This widespread woodhewer has been recorded at 1,100 meters above sea level, on Mount Auyan-tepui, Venezuela, but elsewhere it appears to be a bird of the lowland forests. A female collected at Rockstone on March 27 was in breeding condition, and specimens similarly developed have been taken in northern Brazil and extreme southern Venezuela from November to April (Friedmann, 1948, p. 449).

Glyphorhynchus spirurus spirurus Vieillot

Neops spirurus Vieillot, 1819, *Nouv. Dict. Hist. Nat., nouv. éd.*, 31, p. 338—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 20-29.

FURNARIIDAE

Synallaxis rutilans dissors Zimmer

Synallaxis rutilans dissors Zimmer, 1935, Amer. Mus. Nov., No. 819, p. 4—Campos Salles, Manáos, Brazil.

Acary Mountains: Boundary Camp; 3 males, September 26-October 3.

The range of this spine-tail occupies most of the area north of the Amazon westward to the left bank of the Rio Negro. Although the species was not previously known in British Guiana, it will most certainly be found to occur generally in the southern part of the Colony, since it is recorded both in the coast lands of Dutch and French Guiana and to the westward on the Caura and Orinoco Rivers in Venezuela.

All three Acary specimens are subadults with somewhat short wings (55-58 mm.), but in other respects they agree with an adult female from the Rio Branco (Conceição), Brazil.

Philydor ruficaudatus ruficaudatus Lafresnaye and D'Orbigny

Anabates ruficaudatus Lafresnaye and D'Orbigny, 1838, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 15—Yuracares, Bolivia.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 29-October 3.

Birds from the southern extremity of British Guiana are identical with numerous specimens from French Guiana and Brazil (Obidos, Santarém, Rio Purus, Maranhão, etc.). The species is unknown elsewhere in the Colony and, surprisingly, is not yet recorded from Dutch Guiana.

A closely related form (*flavipectus*), characterized by more yellowish under parts, occupies a relatively limited area in Venezuela extending at least from the sources of the Caura and Ventuari Rivers eastward in the lowlands to Mount Auyan-tepui. Mount Duida birds are referable to the nominate race.

Philydor erythrocerus erythrocerus Pelzeln

Anabates erythrocerus Pelzeln, 1859, Sitzungsber. math.-naturw. Kl. Ak. Wiss. Wien, 34, pp. 105, 128—Barra do Rio Negro [=Manaos].

Acary Mountains: Boundary Camp; 3 males, 2 females, September 27–October 3.

Previous British Guiana records of *erythrocerus* are limited to the region west of the Essequibo River, where the species occurs both in the coastal plain (Ituribisi River) and in the lowland forests of the interior (Ourumee, Kamakusa, Tumatumari). Although as yet unreported in Surinam, it is well known in French Guiana and southward to the north bank of the Amazon.

FORMICARIIDAE

Cymbilaimus lineatus lineatus Leach

Lanius lineatus Leach, 1814, Zool. Misc., 1, p. 20, pl. 6—Berbice, British Guiana.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 23, 28.

The chestnut crown of the female is much darker and richer in color than I have found elsewhere in this form, and its under parts are more extensively washed with buff. The male, however, is identical with other examples of the nominate race.

Thamnophilus murinus murinus Sclater and Salvin

Thamnophilus murinus (Natterer MS.) Sclater and Salvin, 1867, Proc. Zool. Soc. London, 1867, pp. 750, 756—Xeberos, eastern Peru; Cayenne, etc.

Acary Mountains: Boundary Camp; 4 males, 1 female, September 26–October 3.

Three of the four males listed above, as well as a specimen collected on the Mazaruni River, are in closest agreement with a representative series from Obidos. The fourth male approaches *cayennensis* and evidently is similar to certain British Guiana specimens discussed by Zimmer (1933, p. 8). Since the vicinity of Obidos is inhabited by a population found by Todd (1927, p. 153) to correspond with that of Manacapurú, it is not surprising that most British Guiana birds and those from Obidos are readily separable from the strikingly distinct French Guiana form, *cayennensis*. The latter was, in fact, described as a result of comparisons made with twenty-four males from Manacapurú and Obidos, a circumstance with implications that have been disregarded by all subsequent writers.

Zimmer's conclusions (loc. cit., pp. 7, 8) as to the taxonomic status of birds from the north bank of the Amazon are at variance

with those of Todd, whose work I have corroborated in part during the course of the present investigation. While accepting the range of *murinus* as extending eastward into British and Dutch Guiana, Zimmer nevertheless allocates specimens from Faro, Rio Jamundá, to *cayennensis*. This viewpoint is, of course, untenable unless Obidos birds are similarly designated in contradiction of their evident agreement with numerous specimens (thirteen males) of *murinus* from Manacapuru. It is perhaps noteworthy that Zimmer had no Obidos specimens, and commented that those from Faro show "some approach toward" *murinus*, although closer to *cayennensis*. Later workers have followed Zimmer in this connection, evidently without having made a critical examination of Obidos specimens.

***Dysithamnus ardesiacus obidensis* Snethlage**

Dysithamnus ardesiacus obidensis Snethlage, 1914, Orn. Monatsber., 22, p. 40—Obidos, Brazil.

Acary Mountains: Boundary Camp; 2 males, 2 females, September 23–30.

***Thamnomanes caesius glaucus* Cabanis**

Thamnomanes glaucus Cabanis, 1847, Arch. Naturg., 13, (1), p. 230—Cayenne.

Acary Mountains: Boundary Camp; 4 males, 2 females, September 24–October 3.

***Myrmotherula brachyura brachyura* Hermann**

Muscicapa brachyura Hermann, 1783, Tab. Aff. Anim., p. 299—Cayenne.

Acary Mountains: Boundary Camp; 1 female (juv.), October 3.

***Myrmotherula gutturalis* Sclater and Salvin**

Myrmotherula gutturalis Sclater and Salvin, 1881, Ibis, (4), 5, p. 269—Bartica Grove, British Guiana.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 24, 29.

Cory and Hellmayr's designation of Salvin and Godman as the describers of this species has been repeated by most later writers.

***Myrmotherula longipennis longipennis* Pelzelin**

Myrmotherula longipennis Pelzelin, 1868, Orn. Bras., 2, Sept., pp. 82, 153—Rio Negro, Marabitanas.

Acary Mountains: Boundary Camp; 4 males, 6 females, 2 juveniles, September 20–October 3.

***Myrmotherula menetriesii cinereiventris* Sclater and Salvin**

Myrmotherula cinereiventris Sclater and Salvin, "1867," pub. 1868, Proc. Zool. Soc. London, 1867, p. 756—Cayenne.

Acary Mountains: Boundary Camp; 6 males, 3 females, September 21–October 13.

***Herpsilochmus stictocephalus* Todd**

Herpsilochmus stictocephalus Todd, 1927, Proc. Biol. Soc. Wash., 40, p. 159—Tamanoir, French Guiana.

Acary Mountains: Boundary Camp; 1 male, September 24.

Although morphologically very close to *sticturus* Salvin, *stictocephalus* occupies much the same range and hence must be accorded specific rank. In several respects the relationship between these forms is strikingly similar to that of *Myrmotherula brachyura* and *M. obscura* as brought out by Zimmer (1932a, pp. 2–4).

Measurements of the present specimen (wing 50; tail 41) are at the upper limits recorded for *stictocephalus* and exceed by several millimeters the extremes known for *sticturus*. It differs from the latter also in having the forehead minutely streaked with white, although this character is less pronounced than in several Cayenne skins examined.

The range of *stictocephalus* is known at present to extend only from French Guiana westward to the Rio Yuruan in extreme eastern Venezuela, and southward (in British Guiana) to the Acary Mountains. Its distribution within this area is less certain since records prior to 1932 may refer either to *sticturus* or to *stictocephalus*. Nevertheless, a male from Ourumee, British Guiana, in the American Museum (no. 490556) proves to be the latter, whereas certain specimens from Tumatumari, Bartica and Kamakusa are referable to *sticturus*. The present species is not yet recorded in Dutch Guiana.

***Terenura callinota guianensis* Blake**

Terenura callinota guianensis Blake, 1949, Fieldiana, Zool., 31, p. 267—Boundary Camp, head of Itabu Creek, Acary Mountains, British Guiana.

Acary Mountains: Boundary Camp; 1 male, September 30.

This surprising addition to the Guianan fauna constitutes the first record of the species east of the Andes and represents a minimum

range extension of about 1,200 miles. *Terenura c. guianensis* differs from the nominate race of Ecuador, Colombia, and Panama principally in having the rump and lower back notably darker and richer, these parts being Claret Brown of Ridgway rather than Sanford's Brown or Orange Rufous.

The discovery of a race of *callinota* in the Acary Mountains, east of the Essequibo River drainage, represents a considerable extension of the Andean influence, a circumstance of some significance, in view of the discovery in the same area of a typical example of *Contopus nigrescens canescens*, previously known only from Peru.

***Terenura spodioptila spodioptila* Sclater and Salvin**

Terenura spodioptila Sclater and Salvin, 1881, Ibis, p. 270, pl. 9—Bartica Grove, British Guiana.

Acary Mountains: Boundary Camp; 2 males, September 30.

Adult British Guiana specimens agree in every respect with examples of *spodioptila* of comparable maturity from both Venezuela and French Guiana. Thirty-seven specimens from these areas show only minor individual variation in the color of their under parts. Similarly, the edgings of their remiges, whether olive-green or slate-gray, are entirely lacking in geographical significance.

Hitherto the presence of olive-green margins on the remiges has been considered diagnostic of *elaopteryx*, a questionable form described from French Guiana and believed to range southward to the north bank of the lower Amazon. Although recognized without comment by Griscom and Greenway (1941, p. 242) and by Pinto (1938, p. 490), the validity of an eastern representative of *spodioptila* has been seriously questioned by other authors. In commenting on four birds from Faro, Rio Jamundá, Brazil, Zimmer (1932c, p. 7) states that two adults have the margins of the remiges gray, whereas one immature specimen has these parts olive-green and a second young bird is molting from olive to gray. A male from Mount Auyan-tepui, Venezuela, was reported by Gilliard (1941, p. 481) as having the outer edges of the primaries and secondaries washed with green, being in this respect similar to a specimen from Tumatumari, British Guiana, and hence unlike representative examples of the nominate race. Similarly, I find a specimen from the Rio Yuruan, in eastern Venezuela, bearing the distinctive character of *elaopteryx*, whereas the majority of a series of thirteen birds from Cayenne have remiges with gray margins.

In brief, it is clear that *elaopteryx* was based upon a variable factor that is, in fact, merely an expression of immaturity. I can find no alternate character of significance that would establish its claim to recognition.

Hypocnemis cantator cantator Boddaert

Formicarius cantator Boddaert, 1783, Tabl. Pl. Enl., p. 44—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 26–October 10.

The British Guiana race, *notea*, is described as differing (males) from the widespread nominate race of adjacent areas by the prominence of its concealed dorsal white patch, by the presence of streaks rather than spots on the mantle and by the deeper, more intense rufous tone of the flanks, crissum and rump. The notable variability of these characters as found in 47 British Guiana specimens and 23 examples of *cantator* was discussed by Zimmer (1932a, p. 19) who, nevertheless, recognized *notea* on the basis of its average appearance. Nine British Guiana males now before me emphasize still further the unreliability of each of the characters that have been used to distinguish *notea* from *cantator*. The concealed white patch is prominent in only three of the British Guiana series whereas it is considerably reduced in five skins and absent in another. The mantles of five specimens are more nearly spotted than streaked, and in the series as a whole the rufous tone of the flanks, crissum and rump varies from pale to rich. The positive characters of *notea* are, in fact, combined in only three specimens, whereas six skins have one or more of the characters that are attributed to *cantator*.

The Acary specimen is a good example of diverse subspecific characters in fortuitous combination. In this bird the concealed white patch of *notea* is lacking, although the mantle is distinctly streaked and the posterior parts are more intensely rufous than in the average of that form. If *notea* can be distinguished at all, this specimen would properly be considered an intermediate. However, similar combinations of characters occur at random elsewhere in British Guiana and the four French Guiana males (*cantator*) available to me are so diverse as to undermine still further the concept of an endemic subspecies in British Guiana.

Percnostola rufifrons rufifrons Gmelin

Turdus rufifrons Gmelin, 1789, Syst. Nat., 1, (2), p. 825—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 27.

The Acary Mountains evidently separate the ranges of *rufifrons* and *subcristata*, since the latter is known to occupy the area west of the Rio Trombetas and southward to the Amazon. The single Acary specimen is identical with two Rockstone males and measures as follows: wing 75; tail 63.

Myrmeciza ferruginea ferruginea P. L. S. Müller

Turdus ferrugineus P. L. S. Müller, 1776, *Natursyst.*, Suppl., p. 141—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 24, 26.

Formicarius colma colma Boddaert

Formicarius Colma Boddaert, 1783, *Tabl. Pl. Enl.*, p. 44—Cayenne.

Acary Mountains: Boundary Camp; 1 female, October 10.

In an immature British Guiana female in Chicago Museum the forehead is rather pale rufous, the lores are white and the throat is immaculate except for minute black feather tips that form a fringe posteriorly. The Acary specimen is in fully adult plumage except that the throat, surprisingly, is boldly stippled with black as in birds less mature than the preceding. The immature plumage of males has been discussed by Zimmer (1932c, p. 10).

Formicarius analis crissalis Cabanis

Myrmornis crissalis Cabanis, 1861, *Journ. Orn.*, 9, p. 96—Roraima, British Guiana [=Venezuela].

Acary Mountains: Boundary Camp; 1 male, September 23.

Pithys albifrons albifrons Linnaeus

Pipra albifrons Linnaeus, 1766, *Syst. Nat.*, ed. 12, p. 339—"Guiana" [=Cayenne].

Acary Mountains: Boundary Camp; 1 male, 2 females, October 1-11.

Gymnopithys rufigula rufigula Boddaert

Turdus rufigula Boddaert, 1783, *Tabl. Pl. Enl.*, p. 39—Cayenne.

Acary Mountains: Boundary Camp; 1 female, October 1.

Hylophylax naevia naevia Gmelin

Pipra naevia Gmelin, 1789, *Syst. Nat.*, 1, (2), p. 1003—Cayenne.

Acary Mountains: Boundary Camp; 4 males, 2 females, September 21-29.

Two specimens of the present series agree in part with *consobrina* of southern Venezuela and Brazil north of the Rio Negro. Of these, the female has a pure white throat untinged with buff and the male is somewhat more heavily streaked below than average examples of *naevia*. Carriker (1932, pp. 3-4) has reviewed the races of this species in detail, but more material is needed from critical areas in southeastern Venezuela and from the southern extremity of British Guiana to establish the boundaries of intergradation in these forms. For the present, birds from the southern extremity of British Guiana are best assigned to the nominate race.

Hylophylax poecilinota poecilinota Cabanis

Hypocnemis poecilinota Cabanis, 1847, Arch. Naturg., 13, (1), p. 213, pl. 4—British Guiana.

Acary Mountains: Boundary Camp; 5 males, 3 females, September 22–October 1.

Myrmornis torquata Boddaert

Formicarius torquatus Boddaert, 1783, Tabl. Pl. Enl., p. 43—Cayenne.

Itabu Creek: Middle Base Camp; 1 female, September 11.

Acary Mountains: Boundary Camp; 4 males, 7 females, September 22–October 15.

A very abundant and conspicuous species throughout the forest areas of the interior. It appears to be unrecorded in Dutch Guiana, although widely distributed in adjacent countries.

Myrmothera companisona companisona Hermann

Myrmornis companisona Hermann, 1783, Tab. Aff. Anim., p. 189—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, 1 female, September 12, 14.

Acary Mountains: Boundary Camp; 1 female, October 14.

Grallaria varia varia Boddaert

Formicarius varius Boddaert, 1783, Tabl. Pl. Enl., p. 44—Cayenne.

Itabu Creek: Middle Base Camp; 1 male, September 8.

Acary Mountains: Boundary Camp; 3 females, 1?

This magnificent antpitta is limited to the Guianas. A single Brazilian record (Calamá, Rio Madeira) is erroneous, pertaining instead to *distincta* (Griscom and Greenway, 1941, p. 252).

Grallaria macularia macularia Temminck

Pitta macularia Temminck, 1823, Nouv. Réc. Pl. Color., livr. 85, Genre Brève, esp. 11, p. 4 of text—"le Brésil."

Acary Mountains: Boundary Camp; 1 female, September 28.

CONOPOPHAGIDAE

Corythopsis torquata anthoides Pucheran

Muscicapa anthoïdes (Cuvier MS.) Pucheran, 1855, Arch. Mus. d'Hist. Nat. Paris, 7, p. 334—Cayenne.

Acary Mountains: Boundary Camp; 2 males, September 22, 30.

One of these specimens differs from *anthoides*, as usually described, in having its pileum and back concolorous as in *sarayacuensis*. Investigation of this apparent anomaly in the light of ample comparative material has led to the discovery of well-marked sexual dimorphism in *anthoides* and also a secondary racial character serving to distinguish these subspecies.

C. t. anthoides has been characterized as having a slate-gray pileum sharply contrasted with the rufescent-brown of its back. This description is misleading, since by no stretch of the imagination can the pileum be considered "slate-gray." In males only, a variable degree of contrast between pileum and back is created by the gray or blackish tips and borders of individual feathers of the crowns that otherwise are similar in color to those of the back. No such contrast is found in the females of *anthoides*, which resembles *sarayacuensis* (both sexes) superficially in being concolorous above.

Judging from the material at hand it is probable that the Acary specimen discussed above actually is a female, although sexed as a male. This supposition gains weight when the distinctive color tones of these races are taken into consideration. In *anthoides* the dorsal plumage is appreciably less rufescent (more olivaceous) than in *sarayacuensis*. This character is perceptible in the Acary male (female?) and I find no exceptions in a series of 22 specimens of both forms. Four female *sarayacuensis* of my series are decidedly more rufescent than six males, but I am not certain that the difference is significant.

COTINGIDAE

Phoenicercus carnifex Linnaeus

Lanius carnifex Linnaeus, 1758, Syst. Nat., ed. 10, p. 94—Surinam.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 26–October 7.

Cotinga cayana Linnaeus

Ampelis cayana Linnaeus, 1766, Syst. Nat., ed. 12, p. 298—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 21–October 8.

Xipholena punicea Pallas

Turdus puniceus Pallas, 1764, in Vroeg's Catalogue, Adumbrat., p. 2—Surinam.

Itabu Creek: Middle Base Camp; 1 male, 1 female, September 11–13.

Acary Mountains: Boundary Camp; 1 male, 2 females, September 22–October 10.

Xipholena punicea has lately been recorded (Friedmann, 1948, p. 485) as far west as the Brazo Casiquiare, Venezuela, a notable extension beyond Mount Auyan-tepui, where the species evidently is abundant at an altitude of 1,100 meters above sea level.

Rhytipterna simplex frederici Bangs and Penard

Lipaugus simplex frederici Bangs and Penard, 1918, Bull. Mus. Comp. Zool., 62, p. 71—vicinity of Paramaribo, Surinam.

Acary Mountains: Boundary Camp; 1 female, October 10.

Material in Chicago Museum fails entirely to support the separability of a southern race, *intermedia*. Eleven birds collected both north and south of the Amazon, as well as westward in Bolivia, Peru (Rio Ucayali) and Colombia, vary considerably as individuals, but I can find no character of geographical significance. Evidence tending to substantiate the homogeneous nature of these birds has been published by Griscom and Greenway (1941, p. 258). Gyldenstolpe (1945, p. 209) professes to find some merit in the southern form, but his statement that it "does not appear to be a well-marked race, although it is distinguishable in a series," lacks assurance.

Lipaugus cineraceus Vieillot

Ampelis cineracea Vieillot, 1822, Tabl. Enc. Meth., Orn., livr. 91, p. 761—Cayenne.

Acary Mountains: Boundary Camp; 3 males, September 24–October 15.

Although very abundant in lowland forests elsewhere in British Guiana, *cineraceus* was only occasionally found in the Acary Mountains. The ventriloquial and piercing, but not unmusical, quality of its call has been described frequently and cannot fail to delight the newcomer to northern South America. Screaming pihas ordinarily associate in small colonies that might easily escape detection in view of their obscure coloration and retiring habits were it not for the explosive calls that immediately greet an intruder.

My experience with this species over much of its extensive range differs from that of Schomburgk in that it appears habitually to prefer low elevations (10–30 feet) rather than tree-tops, and its social organization is in the nature of a loose association of individuals rather than as a flock in the usual sense.

Platypsaris minor Lesson

Querula minor Lesson, 1830, *Traité d'Orn.*, livr. 5, p. 363—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 26.

The appearance of this specimen corroborates the opinion that certain cotingas require two years to attain fully adult plumage. Although it was collected in advanced breeding condition, its upper parts are more nearly brownish-black than glossy black and the remiges, in partial molt, are dull blackish-brown. The gular patch is more restricted and paler (less rich) than in fully adult birds, and the gray under parts, particularly the throat, are washed with brown. Traylor (in MS.) has commented on the variability of bill-size in *minor*, a characteristic demonstrated by the present specimen, which has a bill strikingly narrower than that of any other specimen of either sex examined.

Querula purpurata P. L. S. Müller

Muscicapa purpurata P. L. S. Müller, 1776, *Natursyst.*, Suppl., p. 169—Cayenne.

Acary Mountains: Boundary Camp; 2 males, September 23.

One specimen is in immature plumage, the characteristic throat patch being represented by only a few crimson feathers.

Perissocephalus tricolor P. L. S. Müller

Corvus tricolor P. L. S. Müller, 1776, *Natursyst.*, Suppl., p. 85—Cayenne.

Itabu Creek: Middle Base Camp; 2 females, September 10, 12.

Acary Mountains: Boundary Camp; 1 female, September 22.

Capuchin birds occur throughout the forested areas of British Guiana but were particularly abundant in the extreme south, along New River and Itabu Creek. Individuals were heard daily in that region, whereas the species appears to be uncommon on the lower Essequibo (Rockstone) and in the Oko Mountains to the northward, and decidedly rare in the coastal belt.

The vernacular name of this bird ("calf bird") is derived from its characteristic call and was applied to an overnight camp (August 30-31) on the lower New River where the species was notably abundant.

***Rupicola rupicola* Linnaeus**

Pipra rupicola Linnaeus, 1766, Syst. Nat., ed. 12, p. 338—French Guiana.

Acary Mountains: Boundary Camp; 6 males, 3 females.

The cock-of-the-rock occupies an extensive range in northern South America, but fundamental ecological requirements sharply control its local distribution. Although limited to the Tropical Zone, the species is further restricted to areas of precipitous terrain that support more or less dense primeval forest. Locally it is most abundant in the vicinity of humid, shady ravines having rock outcroppings or large boulders, and swiftly flowing water.

In British Guiana cocks-of-the-rock occur, in varying abundance, throughout the forested hills and mountains of low altitude in the west and extreme south. They were decidedly abundant in the Acary Mountains and were heard daily in the vicinity of the expedition's Boundary Camp, at an altitude of 1,800 feet. Individuals were also seen, but not collected, on a small isolated hill (900 feet) on the right bank of Itabu Creek opposite Middle Base Camp, a locality not less than ten miles distant from the Acary foothills.

The longevity of uncaged cocks-of-the-rock is not known, but Crandall (1949, p. 31) has reported a captive specimen in the New York Zoological Park that attained an age of "more than 15 years."

PIPRIDAE

***Pipra serena serena* Linnaeus**

Pipra serena Linnaeus, 1766, Syst. Nat., ed. 12, p. 340—Cayenne and Surinam.

Acary Mountains: Boundary Camp; 5 males, 1 female. September 22-October 10.

A prominent orange pectoral spot immediately distinguishes the nominate race from *suavissima* of western British Guiana and southern Venezuela. Hitherto *serena* has been recorded only in French Guiana (numerous localities) and from upper Rocana, in northern Pará, Brazil.

Pipra erythrocephala erythrocephala Linnaeus

Parus erythrocephalus Linnaeus, 1758, Syst. Nat., ed. 10, p. 191—Surinam.

Acary Mountains: Boundary Camp; 2 males, 1 female, September 25.

Few golden-headed manakins were seen in the Acary Mountains. They are generally distributed and locally abundant in lowland forests elsewhere in British Guiana.

Pipra pipra pipra Linnaeus

Parus pipra Linnaeus, 1758, Syst. Nat., ed. 10, p. 190—Surinam.

Acary Mountains: Boundary Camp; 4 males, 4 females, September 21–October 3.

This manakin occupies much the same range as the preceding, but in British Guiana it appears everywhere to be the more abundant of the two; *pipra* largely replaces *erythrocephala* in the extreme south, but to the northward (Rockstone, Oko Mountains, etc.) I would judge their proportions to be approximately 2 to 1.

Corapipo gutturalis Linnaeus

Pipra gutturalis Linnaeus, 1766, Syst. Nat., ed. 12, p. 340—Cayenne.

Acary Mountains: Boundary Camp; 2 males, 3 females, September 23–29.

TYRANNIDAE

Ochthornis littoralis Pelzeln

Elainea littoralis Pelzeln, 1868, Orn. Bras., 2, pp. 108, 180—Cachoeira Guajará-guacú, Rio Mamoré, Amazonas.

New River: Phantom Falls; 1 female, October 23.

Haimara Camp; 2 males, 2 females, October 24.

The worn plumage of these specimens is browner and much darker than that of a series from Brazil and Peru. The remiges and wing coverts also lack the buffy or light-colored margins found in the latter. This species is uncommon in British Guiana, and its dis-

tribution appears to be discontinuous. A few individuals were seen along New River and on the lower portion of Itabu Creek, but I found none at Rockstone or elsewhere to the northward. Ourumee evidently is the only previous record for British Guiana.

Contopus nigrescens canescens Chapman

Contopus nigrescens canescens Chapman, 1926, Amer. Mus. Nov., No. 231, p. 7—Rio Negro, Dept. San Martín, Peru.

Acary Mountains: Boundary Camp; 1 male, September 26.

This specimen agrees in minute detail with four examples of *canescens* from the Rio Negro, some thirty-five miles west of Moyobamba, Peru. The presence of this rare and presumably sedentary Peruvian flycatcher in British Guiana, more than 1,400 miles north-east of its known range, can hardly be regarded as a fortuitous circumstance. If, as is most likely, a resident population is found to occupy the virtually unexplored Brazilian-Guiana frontier there can be no further question of the integrity of *nigrescens* as a species. In any event, there is no reason to regard the birds of this group as conspecific with *cinereus*, a well-marked form represented in the Guianas by *surinamensis*.

Myiobius barbatus barbatus Gmelin

Muscicapa barbata Gmelin, 1789, Syst. Nat., 1, (2), p. 933—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 1?, September 23, 29.

Platyrinchus saturatus Salvin and Godman

Platyrhynchus saturatus Salvin and Godman, 1882, Ibis, (4), 6, p. 78—Merumé Mountains, British Guiana.

Acary Mountains: Boundary Camp; 1 male, September 24.

There is a considerable range of individual variation in *saturatus*, especially as to the richness of brown dorsally, and in the intensity of the chestnut coronal patch. The latter is exceptionally dark in the Acary bird, but I find the tone duplicated fairly well in several Venezuelan and Brazilian skins.

Platyrinchus coronatus gumia Bangs and Penard

Placostomus coronatus gumia Bangs and Penard, 1918, Bull. Mus. Comp. Zool., 62, p. 74—vicinity of Paramaribo, Dutch Guiana.

Acary Mountains: Boundary Camp; 2 males, 2 females, September 21–October 4.

Tolmomyias flavotectus examinatus Chubb

Rhynchocyclus sulphureus examinatus Chubb, 1920, Bull. B. O. C., 40, p. 108—Bartica Grove, British Guiana.

Acary Mountains: Boundary Camp; 3 males, October 3.

Uncertainty as to the relationship between two superficially similar, but actually quite distinct species has confused the taxonomic status of *examinatus* for a number of years. Although originally referred to the *sulphureus* group and considered endemic to British Guiana (numerous localities), it was reduced subsequently to a synonym of *cherriei* (Hartert and Goodson), a widespread form previously described from Cayenne.

Zimmer's revision of *Tolmomyias* (1939, pp. 1-17) re-established *examinatus* and proved it to be actually an eastern representative of *flavotectus*. This species is distinguished from *sulphureus* by the presence of a more or less prominent, but sometimes obscure, whitish or pale yellowish speculum on the outer webs of the primaries (usually limited to the seventh, sixth, and fifth feathers) just beyond the tips of the primary coverts, and by the greater length of the tenth (outermost) primary as compared with the fourth. The wing speculum is lacking, and the fourth primary exceeds the outermost in length in all races of *sulphureus*.

Both *sulphureus* and *flavotectus* are represented in all three Guianas, a circumstance that confuses the proper allocation of early locality records, with consequent uncertainty as to the local distribution of each. Nevertheless, in so far as British Guiana is concerned, I find that certain specimens from Potaro Landing, Tumatumari, Minnehaha Creek and the Mazaruni River, as well as all Acary specimens, are unquestionably referable to *examinatus*. Present data indicate that this form exceeds *cherriei* by approximately 3 to 1 in British Guiana, whereas the proportion is reversed in French Guiana.

Myiopagis gaimardii guianensis Berlepsch

Elaenia gaimardi guianensis Berlepsch, 1907, Ornith., 14, p. 421—Camacusa, British Guiana.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 30.

Tyranniscus gracilipes acer Salvin and Godman

Tyranniscus acer Salvin and Godman, 1883, Ibis, (5), 1, p. 206—Bartica Grove and Camacusa, British Guiana.

Acary Mountains: Boundary Camp; 2 males, 1?

Leptopogon amaurocephalus obscuritergum Zimmer and Phelps

Leptopogon amaurocephalus obscuritergum Zimmer and Phelps, 1946, Amer. Mus. Nov., No. 1312, p. 16—Mount Auyan-tepui, Bolivar, Venezuela.

Acary Mountains: Boundary Camp; 1 male, 1 female, September 24, October 3.

Birds from the Merumé Mountains presumably also belong to this recently described form, which ranges westward to Mount Duida in Venezuela.

Pipromorpha macconnelli macconnelli Chubb

Pipromorpha oleaginea macconnelli Chubb, 1919, Ann. Mag. Nat. Hist., (9), 4, p. 303—Camacabra Creek, British Guiana.

Acary Mountains: Boundary Camp; 1 male, September 27.

The slightly brighter abdomen and under wing coverts and possibly lighter upper parts of this specimen suggest some degree of intergradation with *roraimae* of southern Venezuela (Roraima, Auyan-tepui, Duida, etc.), but this trend needs to be evaluated in the light of additional material from the western and southern parts of the colony. *Pipromorpha m. macconnelli* occurs both on the coast and in forest areas over much of the interior, whereas *roraimae* evidently has very limited distribution in British Guiana. Other than an early record for the Merumé Mountains, it has been taken only at Paruima Mission and on the Adaroo River (Phelps Collection, Caracas), in the vicinity of Mount Roraima.

OXYRUNCIDAE

Oxyruncus cristatus phelpsi Chapman

Oxyruncus cristatus phelpsi Chapman, 1939, Amer. Mus. Nov., No. 1047, p. 1—Mount Auyan-tepui, Venezuela.

Acary Mountains: Boundary Camp; 1 male, 3 females, September 29–October 12.

The curious distribution of this species, in which the geographically distant peripheral forms *frater* (Costa Rica) and *cristatus* (southern Brazil and Paraguay) are morphologically closer than is either to its nearest geographical relative, was regarded by Chapman (1939, pp. 2–4) as having resulted from evolutionary pressure expressed at or near a common center of dispersal. While there is theoretical basis for this viewpoint, supporting evidence is needed to eliminate the factor of parallelism as an alternative explanation.

Fortunately, there is less uncertainty as to the probable center of dispersal. The presence of *phelpsi* in extreme southern British Guiana, as well as on Mount Auyan-tepui, considerably enhances Chapman's designation of the Roraima tablelands as the probable ancestral home of *cristatus*. In appearance *phelpsi* is intermediate between *hypoglaucus* of Roraima and the Merumé Mountains, and *brooksi* of eastern Panama. A race from the Tocantins is very close to *hypoglaucus*, although smaller, whereas the peripheral forms previously mentioned differ from all others in having greenish under parts.

HIRUNDINIDAE

Atticora melanoleuca Wied

Hirundo melanoleuca Wied, 1820, Reise Bras., 1, p. 345—Rio Belmonte, Bahia, Brazil.

New River: Haimara Camp; 1 male, October 24.

Black-collared swallows were common along the full length of the Courantyne River, but they occurred in greatest abundance above King Frederick William IV Falls, and on New River. None were seen above Middle Base Camp on Itabu Creek, nor did I find them at Rockstone on the Essequibo River, in March, 1937. Chubb also comments upon the discontinuous distribution of *melanoleuca*.

Iridoprocne albiventer Boddaert

Hirundo albiventer Boddaert, 1783, Tabl. Pl. Enl., p. 32—Cayenne.

New River: Haimara Camp; 1 female, October 24.

This swallow is perhaps the most characteristic bird of the inland waters of British Guiana. Although present in some abundance along the greater extent of Itabu Creek, white-winged swallows prefer the shore lines and broad expanses of larger streams, from which they seem never to be absent.

CORVIDAE

Cyanocorax cayanus Linnaeus

Corvus cayanus Linnaeus, 1766, Syst. Nat., ed. 12, p. 157—Cayenne.

Courantyne River: King Frederick William IV Falls; 2 males, August 17, 19.

Itabu Creek: Middle Base Camp; 1 male, September(?).

Cayenne jays were occasionally heard in the Acary Mountains but the species is far more numerous in lowland forests nearer the coast. Small, vociferous flocks were encountered at Wismar and Rockstone in March, 1937, and available records indicate very general distribution in all wooded areas of the Colony.

Adult plumage is not acquired before the second year. Two Guiana specimens collected August 19 and March 4, respectively, have mature measurements, but represent successive stages of sub-adult plumage. While the first is clearly a bird of the year, the plumage of the second bird is much more advanced, although still lacking well-defined mystacial marks.

TROGLODYTIDAE

Microcerculus bambla bambla Boddaert

Formicarius bambla Boddaert, 1783, Tabl. Pl. Enl., p. 44—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 27.

Recent investigations of Gilliard and of Griscom and Greenway have extended the range of this Guianan form to eastern Venezuela (Mount Auyan-tepui), and southward to the north bank of the Amazon (Obidos). The Acary Mountains are, therefore, very nearly the center of its distribution as now known.

Leucolepis arada arada Hermann

Myrm[ornis] arada Hermann, 1783, Tabl. Aff. Anim., p. 211—Cayenne.

Acary Mountains: Boundary Camp; 2 females, September 28, 29.

Like many of its relatives, this obscurely colored and furtive wren is more often heard than seen. Numerous individuals were heard daily in the Acary Mountains and my field notes referred to the "organ bird" long before I realized that the designation has often been applied to this incomparable songster.

TURDIDAE

Turdus albicollis poiteaui Bonaparte

Turdus poiteaui Bonaparte, 1854, Compt. Rend. Acad. Sci. Paris, 38, p. 4—Cayenne.

Itabu Creek: Middle Base Camp; 2 males, September 12, 13.

Acary Mountains: Boundary Camp; 2 males, 2 females, September 26–October 13.

As pointed out by Hellmayr (1934, p. 372, footnote), *poiteaui* was applied to French Guiana birds long before Todd's designation *cayennensis*.

This is a well-defined race differing from *phaeopygus* principally by its deeper (richer) dorsal parts and smaller size. Although both forms range into the Guianas, uncertainty as to the status of Dutch Guiana birds beclouds the geographical boundaries of each. Some inferences, however, may be drawn from the present series. British Guiana specimens collected west of the Essequibo River (numerous localities) are quite properly assigned to *phaeopygus*, but the discovery of *poiteaui* in the Acary Mountains and adjacent lowlands not only suggests the probable identity of Surinam birds but also directs suspicion towards the status of eastern British Guiana birds, which hitherto have been referred arbitrarily to *phaeopygus*.

My series from the southern extremity of the Colony includes intermediate specimens as well as typical examples of *poiteaui*. Four skins (1 male, Itabu Creek; 1 male, 2 females, Acary Mountains) are indistinguishable from French Guiana birds, whereas two males show some tendency toward *phaeopygus*. Intermediacy of birds in this area is indicated also by measurements of the four males: wing 102-110 (105); tail 82-90 (84).

VIREOLANIIDAE

***Smaragdolanus leucotis leucotis* Swainson**

Malaconotus leucotis Swainson, 1837, Anim. Menag., p. 341—"Africa," in error.

Acary Mountains: Boundary Camp; 1 male, September 26.

VIREONIDAE

***Hylophilus muscicapinus muscicapinus* Sclater and Salvin**

Hylophilus muscicapinus Sclater and Salvin, 1873, Nomencl. Av. Neotrop., p. 156—St. Louis d'Oyapock, French Guiana.

Acary Mountains: Boundary Camp; 1 female, September 26.

This bird was, surprisingly, in advanced breeding condition.

***Hylophilus ochraceiceps luteifrons* Sclater**

Hylophilus luteifrons Sclater, 1881, Ibis, (4), 5, p. 308—Bartica Grove, British Guiana.

Acary Mountains: Boundary Camp; 3 males, 2 females, September 24-October 3.

The range of *ferrugineifrons* has recently been extended eastward to Paruima Mission, at the confluence of the Paruima and Kamarang Rivers in west-central British Guiana (Blake, 1948, p. 317). Elsewhere in the Colony *ochraceiceps* is represented by the present form.

COEREBIDAE

Chlorophanes spiza spiza Linnaeus

Motacilla spiza Linnaeus, 1758, Syst. Nat., ed. 10, p. 188—Surinam.

Acary Mountains: Boundary Camp; 7 males, 2 females, September 22–October 12.

Progressive fading of the blue-green shades in museum specimens has been mentioned by Friedmann (1948, p. 537). I find little or no evidence of this in males dating back into the last century, but the green plumage of females becomes distinctly yellowish with age.

Cyanerpes caeruleus caeruleus Linnaeus

Certhia caerulea Linnaeus, 1758, Syst. Nat., ed. 10, p. 118—Surinam.

Acary Mountains: Boundary Camp; 3 males, 3 females, September 30–October 12.

In describing a new race, *hellmayri*, from the "Potaro Highlands" of British Guiana, Gyldenstolpe evidently failed to take sufficiently into account both the extent of variability shown by *caeruleus* and the extreme improbability of an endemic subspecies in so small and fundamentally undistinguished an area within the range of another form.

I have seen no topotypical specimens of *hellmayri*, but a comparison of skins from numerous other British Guiana localities with birds taken in northern Brazil, Dutch Guiana and French Guiana fully establishes the intrinsic continuity of this population. It is illuminating to find that a male from Kalakoon, on the lower Mazaruni River, answers the description of *hellmayri* very well both in size (wing 60; tail 30; culmen 22) and color, whereas a second specimen, also from the lower Mazaruni, differs in no way from typical examples of the nominate race. Similarly, a female from Potaro Landing has the cinnamon-buff throat and robust bill credited to *hellmayri*, but these characters also occur in a French Guiana series.

The limited area available to *hellmayri* is clearly isolated within the range of *caeruleus* and lacks both topographical and ecological

features of significance. In the absence of toponymical material its status is necessarily uncertain but for the present there seems to be no reason to recognize so nebulous a form.

A male with enlarged gonads was collected in the Acary Mountains on October 11.

Dacnis cayana cayana Linnaeus

Motacilla cayana Linnaeus, 1766, Syst. Nat., ed. 12, p. 336—Cayenne.

Acary Mountains: Boundary Camp; 5 males, 1 female, September 23–October 12.

A breeding male collected at Rockstone on March 30 resembles a female except for a few black feathers on the throat and back. One of the Acary males collected September 23 is also in subadult plumage, but less advanced, its throat alone being partly black.

Coereba flaveola minima Bonaparte

Certhiola minima Bonaparte, 1854, Compt. Rend. Acad. Sci. Paris, 38, p. 259—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, October 10, 12.

Earlier British Guiana records of *flaveola* (numerous localities) are referable to *guianensis*. Birds of the present series are easily distinguished by their more sooty upper parts and less bright rumps. Specimens of *minima* average slightly larger than the series of *guianensis* at hand, but the measurements of all Acary birds (male: wing 52; tail 30; females: wing 50, 55; tail 28, 28) are unaccountably small for either form.

PARULIDAE

Parula pitiayumi elegans Todd

Compsothlypis pitiayumi elegans Todd, 1912, Ann. Carnegie Mus., 8, p. 204—Anzoategui, Lara, Venezuela.

Acary Mountains: Boundary Camp; 2 males, October 1.

This very interesting record extends the known range of *elegans* eastward from Forte do São Joaquim, on the Rio Branco, by more than 200 miles. A closely related olive-backed warbler is found in the Subtropical Zone of both Duida and Roraima, but has not yet been reported in British Guiana.

One of the Acary birds is in immature plumage, with dull brown upper parts, the wing coverts barely tipped with white, and yellow

limited to the throat and a patch in the center of the abdomen. The second specimen is adult, but in worn plumage.

ICTERIDAE

Ostinops decumanus decumanus Pallas

Xanthornus decumanus Pallas, 1769, Spic. Zool., fasc. 6, p. 1, pl. 1—Surinam.

Upper Courantyne River: King Frederick William IV Falls;
2 females, August 16, 17.

Crested oropendolas are a prominent element of the Guianan lowland fauna and occur in abundance over most of the Colony. Although generally distributed throughout the forested areas, they are most partial to the vicinity of clearings and large waterways. The species was not found in the Acary Mountains and only occasionally on New River.

Ostinops viridis viridis P. L. S. Müller

Oriolus viridis P. L. S. Müller, 1776, Natursyst., Suppl., p. 87—Cayenne.

Acary Mountains: Boundary Camp; 2 males, 2 females, September 30–October 10.

Green oropendolas largely supplant the previous species in the southern extremity of British Guiana and were abundant both on the New River and at all elevations in the Acary Mountains. They were very common in the Oko Mountains in 1937, but much less so at Rockstone. They appear to be considerably outnumbered by *decumanus* throughout the coastal area.

Cacicus cela cela Linnaeus

Parus Cela Linnaeus, 1758, Syst. Nat., ed. 10, p. 191—Surinam.

Itabu Creek: Middle Base Camp; 1 male, September 4.

Oronoque River: Oronoque Base Camp; 1 male, October 26.

This cacique was not found in the Acary Mountains beyond the foothills, although generously represented elsewhere in British Guiana.

THRAUPIDAE

Tanagra violacea violacea Linnaeus

Fringilla violacea Linnaeus, 1758, Syst. Nat., ed. 10, p. 182—Surinam.

New River: Ashiru Falls; 1 male, October 27.

Tangara chilensis paradisea Swainson

Aglaia paradisea Swainson, 1837, Nat. Hist. Classif. Bds., 2, p. 286—Brazil.

Acary Mountains: Boundary Camp; 1 male, September 30.

This specimen is very clearly a typical example of the eastern race that occupies an extensive range north of the Amazon, extending westward at least to the Rio Manacapurú (lower Solimões), a locality represented by birds tending slightly towards *coelicolor*, but much nearer *paradisea*. Its occurrence in southern British Guiana is, therefore, not unexpected.

Previous British Guiana records of this species (Merumé Mountains) have been referred to *coelicolor*, a questionable designation since Zimmer (1943, p. 2) finds Roraima and Caura birds to be intermediates. Four British Guiana specimens from Paruima Mission and Membaro Creek in the Phelps Collection have, nevertheless, been determined as *coelicolor*!

Tangara punctata punctata Linnaeus

Tanagra punctata Linnaeus, 1766, Syst. Nat., ed. 12, p. 316—Surinam.

Acary Mountains: Boundary Camp; 1 male, 3 females, September 22–October 11.

Cyanicterus cyanicterus Vieillot

Pyrranga cyanicterus Vieillot, 1819, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 290—Cayenne.

Acary Mountains: Boundary Camp; 1 female, September 26.

A rare and little-known bird. Previous British Guiana records are limited to the western parts.

Lanio fulvus Boddaert

Tanagra sulva Boddaert, 1783, Tabl. Pl. Enl., p. 50—Cayenne.

Acary Mountains: Boundary Camp; 11 males, 2 females, September 24–October 13.

The western race, *peruvianus*, described by Carriker from Peru, requires substantiation. "Bogotá" skins in Chicago Museum are minutely similar to Guiana birds, and Zimmer's study of 64 specimens of this species demonstrates further the instability of characters that might distinguish subspecies.

Tachyphonus cristatus intercedens Berlepsch

Tachyphonus intercedens Berlepsch, 1880, Ibis, (4), 4, p. 113—"Orinoco district or Trinidad."

Acary Mountains: Boundary Camp; 6 males, 2 females, September 24–October 15.

Unlike the great majority of Guianan birds, *intercedens* occupies a very restricted range centering in British Guiana (numerous localities) and extending beyond with certainty only to Surinam (Paramaribo and Altonaweg) and eastern Venezuela (Orinoco Delta and Mount Auyan-tepui). All specimens from the Acary Mountains are perfectly typical, but some intergradation with the nominate race is evident in Mount Auyan-tepui birds.

Tachyphonus surinamus surinamus Linnaeus

Turdus surinamus Linnaeus, 1766, Syst. Nat., ed. 12, p. 297—Surinam.

Acary Mountains: Boundary Camp; 2 males, September 27–October 15.

Tachyphonus luctuosus luctuosus Lafresnaye and D'Orbigny

Tachyphonus luctuosus Lafresnaye and D'Orbigny, 1837, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29—Guarayos, Bolivia.

Acary Mountains: Boundary Camp; 1 male, September 29.

Hemithraupis guira nigrigula Boddaert

Tanagra nigrigula Boddaert, 1783, Tabl. Pl. Enl., p. 45—Cayenne.

Acary Mountains: Boundary Camp; 2 males, September 26, October 1.

Measurements of these specimens (wing 64, 66; tail 51, 53; bill 11, 11) agree with those of a fine series from French Guiana and Brazil north of the Amazon. The subspecies *roraïmae*, a highland bird distinguished by its greater size, occurs in the Merumé Mountains and has been reported on the Abary River (Chubb, 1921, p. 544). The latter record obviously refers to the present form, although hitherto unrecognized in British Guiana.

Hemithraupis flavicollis flavicollis Vieillot

Nemosia flavicollis Vieillot, 1818, Nouv. Dict. Hist. Nat., nouv. éd., 22, p. 491—Cayenne.

Acary Mountains: Boundary Camp; 1 male, 2 females, October 3.

Comparison of these specimens with other British Guiana material, and a large series from French Guiana and Brazil north of the Amazon, seriously weakens the previous concept of a separable race endemic to western British Guiana. *Hemithraupis f. hellmayri*

of the Merumé Mountains and adjacent areas is described as similar to the nominate race, but markedly larger. Comparative measurements of males provided by Hellmayr (1936, p. 382, footnote) clearly support this distinction: wing 74–79 (against 70–72); tail 55–60 (against 52–54); bill 13–13.5 (against 11–12).

The superior measurements of *hellmayri* listed above presumably are based upon the four topotypical specimens examined by Dr. Hellmayr himself (loc. cit.). Although additional material from the Merumé Mountains is not now available, the dimensions of a series taken at several localities within the range of *hellmayri* agree, instead, with those of *flavicollis*. Six males from the Caramang River, Potaro Landing and Tumatumari measure as follows: wing 65–74 (69); tail 51–56 (54). Of this series, only one specimen (Caramang River) equals the minimum size of *hellmayri*, whereas the wings and tail of a second bird from the same locality measure 68 and 61 millimeters respectively. A single Rockstone male (wing 70; tail 50) agrees with the nominate race, and birds from the Acary Mountains are similarly indistinguishable. A series from Obidos in the Carnegie Museum has been identified by Griscom and Greenway (1941, p. 331) as *flavicollis*, although otherwise it seems to be unknown beyond the Guianas. Pinto does not list it in his Brazilian catalogue.

From the foregoing it is evident that the range of *hellmayri* is limited to the Merumé Mountains alone, if, in fact, it can be maintained at all.

Lamprospiza melanoleuca Vieillot

Saltator melanoleucus Vieillot, 1817, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 105—Cayenne.

Acary Mountains: Boundary Camp; 2 females, September 23.

The distribution of this little-known tanager is surprisingly extensive, although evidently discontinuous or "spotty." Beebe (1917, p. 137) lists it at Bartica without comment, but I find no other record of its occurrence in British Guiana.

Saltator maximus maximus P. L. S. Müller

Tanagra maxima P. L. S. Müller, 1776, Natursyst., Suppl., p. 159—Cayenne.

Acary Mountains: Boundary Camp; 1 male, September 24.

Caryothraustes canadensis canadensis Linnaeus

Loxia canadensis Linnaeus, 1766, Syst. Nat., ed. 12, p. 304—Cayenne.

Acary Mountains: Boundary Camp; 4 males, 2 females, September 23–October 1.

Pitylus grossus grossus Linnaeus

Loxia grossa Linnaeus, 1766, Syst. Nat., ed. 12, p. 307—Cayenne.

Acary Mountains: Boundary Camp; 2 males, September 22.

These grosbeaks, as well as the two previous species, occur in more or less abundance throughout British Guiana. Although they are more easily observed in the villages and plantations of the coastal area, I have found them to be no less numerous in the forests of the interior. Both *maximus* and *grossus* prefer shrubs or trees of low elevation, and are relatively solitary in habit, whereas *canadensis* ordinarily ranges the tree-tops in noisy flocks.

Arremon taciturnus taciturnus Hermann

Tanagra taciturna Hermann, 1783, Tab. Aff. Anim., p. 214—Cayenne.

Acary Mountains: Boundary Camp; 2 males, 1 female, September 23–27.

Three specimens collected at Rockstone, March 12–30, were in breeding condition.

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